

Notice of Allowability

Application No.

10/662,341

Examiner

Brian M. Healy

Applicant(s)

ARAI ET AL.

Art Unit

2874

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the application filed 09/16/2003.
2. ☒ The allowed claim(s) is/are 1-9.
3. ☒ The drawings filed on 16 September 2003 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. 09/983,616.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

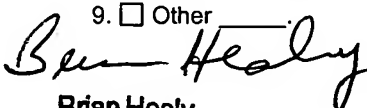
Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date 03/02/2004
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other


Brian M. Healy
Primary Examiner

Brian M. Healy
Primary Examiner
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REASONS FOR ALLOWANCE

The following is an Examiner's Statement of Reasons for Allowance: The closest prior art of record i.e. Nouchi et. al., U.S. Patent No. 6,625,359 teaches (Figs.1-2) a dispersion shifted or low dispersion optical fiber comprising a single mode optical fiber having an effective area greater than or equal to $60\mu\text{m}^2$ wherein the fiber has a zero chromatic dispersion wavelength (λ_0) that is greater than $1585\mu\text{m}$ with the chromatic dispersion being greater in absolute terms than 3 ps/nm/km with a chromatic dispersion gradient at 1550nm lying in absolute terms in the range of $0.045\text{ ps/nm}^2/\text{km}$ to $0.09\text{ ps/nm}^2/\text{km}$. Nouchi et.. al. 359' does not teach or suggest the claimed invention, as is recited in claims 1-9, with a low dispersion optical fiber characterized by a difference between a maximum value and a minimum value of a dispersion value in a wavelength band having a bandwidth of 30nm within a wavelength range of 1450 nm to 1650 nm of 2 ps/nm/km or less, a zero dispersion wavelength outside of a wavelength range of 1450 nm to 1650 nm , an effective core area at a wavelength range of 1550 nm of $50\mu\text{m}^2$ or more and $70\mu\text{m}^2$ or less, and a bending loss at a wavelength of 1550 nm when bent at a diameter of 20 mm of 20 dB/m or less, with an effective cutoff wavelength of 1290 nm or more with a dispersion at a wavelength of 1550 nm of 2 ps/nm/km or more in absolute value, and a single mode operation in a wavelength band having a bandwidth of 30 nm within a wavelength range of 1450 nm to 1650 nm .. Also not shown or taught by the prior art of record is a positive dispersion slope of $0.035\text{ ps/nm}^2/\text{km}$ or less over a wavelength range of 1450 nm to 1650nm

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and the recited center core and side core embodiments (See claims 1-9 for specific limitations). These limitations are recited in claims 1-9 and are considered to be patentable over Matsuoka et. al., and all of the other references of record.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning the merits of this communication should be directed to Examiner Brian M. Healy at telephone number (571) 272-2347. Any inquiry of a general or clerical nature (i.e. a request for a missing form or paper, etc.) should be directed to the Technology Center 2800 receptionist at telephone number (571) 272-2344, to the technical support staff supervisor (Team 2) at telephone number (703) 308-3072, or to the Technology Center 2800 Customer Service Office at telephone number (703) 306-3329.



Brian Healy
Primary Examiner

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Group Art Unit 2874